## SEQUENCE LISTING

```
<110> Manoharan, Muthiah
<120> Carbohydrate or 2'-Modified Oligonucleotides Having
      Alternating Internucleoside Linkages
<130> ISIS3863
<140> 09/349,007
<141> 1999-07-07
<150> 09/115,025
<151> 1998-07-14
<160> 13
<170> PatentIn Ver. 2.1
<210> 1
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<221> modified_base
<222> (1)..(20)
<223> Alternating phosphodiester/phosphorothioate
      linkages
<220>
<221> modified_base
<222> (2)..(20)
<223> 2'-Methoxyethoxy
<220>
<223> Description of Artificial Sequence: Novel Sequence
<400> 1
                                                                    20
tctgagtagc agaggagctc
<210> 2
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
```

```
<221> modified_base
<222> (1)..(20)
<223> Alternating phosphodiester/phosphorothioate
<220>
<221> modified_base
<222> (1)..(6)
<223> 2'-Methoxyethoxy
<220>
<221> modified_base
<222> (15)..(20)
<223> 2'-Methoxyethoxy
<220>
<223> Description of Artificial Sequence: Novel Sequence
<400> 2
                                                                    20
atgcattctg cccccaagga
<210> 3
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<221> modified base
<222> (1)..(20)
<223> Alternating phosphodiester/phosphorothioate
      linkages
<220>
<221> modified_base
<222> (13)..(20)
<223> 2'-Methoxyethoxy
<220>
<223> Description of Artificial Sequence: Novel Sequence
<400> 3
gcccaagctg gcatccgtca
                                                                    20
<210> 4
<211> 20
<212> DNA
```

```
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Novel Sequence
<400> 4
                                                                   20
tctgagtagc agaggagctc
<210> 5
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<221> modified base
<222> (1)..(20)
<223> All phosphorothioate linkages
<223> Description of Artificial Sequence: Novel Sequence
<400> 5
                                                                   20
tctgagtagc agaggagctc
<210> 6
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<221> modified_base
<222> (1)..(20)
<223> All phosphorothicate linkages
<220>
<221> modified_base
<222> (1)..(20)
<223> 2'-Methoxyethoxy
<220>
<223> Description of Artificial Sequence: Novel Sequence
<400> 6
                                                                    20
tctgagtagc agaggagctc
```

```
<210> 7
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<221> modified_base
<222> (1)..(20)
<223> 2'-Methoxyethoxy
<220>
<223> Description of Artificial Sequence: Novel Sequence
<400> 7
                                                                    20
tctgagtagc agaggagctc
<210> 8
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<221> modified_base
<222> (1)..(20)
<223> Alternating phosphodiester/phosphorothioate
      linkages
<220>
<221> modified_base
<222> (1)..(20)
<223> Staggered 2'-Methoxyethoxy
<220>
<223> Description of Artificial Sequence: Novel Sequence
<400> 8
                                                                    20
tctgagtagc agaggagctc
<210> 9
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<221> modified_base
<222> (1)..(20)
```

```
<223> 2'-Methoxyethoxy
 <220>
 <221> modified_base
 <222> (2)
 <223> c=5-methyl
 <220>
 <221> modified_base
 <222> (10)
 <223> c=5-methyl
 <220>
 <221> modified_base
 <222> (18)
 <223> c=5-methyl
 <220>
 <221> modified_base
 <222> (20)
 <223> c=5-methyl
 <220>
 <223> Description of Artificial Sequence: Novel Sequence
 <400> 9
                                                                      20
 tctgagtagc agaggagctc
 <210> 10
 <211> 20
 <212> DNA
 <213> Artificial Sequence
 <220>
 <221> modified_base
 <222> (4)
< <223> c=5-methyl
 <220>
 <221> modified_base
 <222> (6)
 <223> c=5-methyl
 <220>
 <221> modified_base
 <222> (9)
 <223> c=5-methyl
```

```
<220>
<221> modified_base
<222> (13)
<223> c=5-methyl
<220>
<223> Description of Artificial Sequence: Novel Sequence
<400> 10
gatcgcgtcg gactatgaag
<210> 11
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<221> modified_base
<222> (1)..(20)
<223> 2'-Methoxyethoxy
<220>
<221> modified_base
<222> (1)..(20)
<223> All phosphorothicate linkages
<220>
<221> modified_base
<222> (2)
<223> c=5-methyl
<220>
<221> modified_base
<222> (10)
<223> c=5-methyl
<220>
<221> modified_base
<222> (18)
<223> c=5-methyl
<220>
<221> modified base
<222> (20)
<223> c=5-methyl
```

20

```
<220>
<223> Description of Artificial Sequence: Novel Sequence
<400> 11
tctgagtagc agaggagctc
                                                                    20
<210> 12
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<221> modified_base
<222> (4)
<223> c=5-methyl
<220>
<221> modified_base
<222> (6)
<223> c=5-methyl
<220>
<221> modified_base
<222> (9)
<223> c=5-methyl
<220>
<221> modified_base
<222> (13)
<223> c=5-methyl
<220>
<223> Description of Artificial Sequence: Novel Sequence
<400> 12
                                                                    20
gatcgcgtcg gactatgaag
<210> 13
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<221> modified_base
<222> (1)..(20)
<223> 2'-methoxyethoxy
```





20

```
<220>
<221> modified_base
<222> (1)..(20)
<223> Alternating phosphodiester/phosphorothioate
      linkages
<220>
<221> modified_base
<222> (2)
<223> c=5-methyl
<220>
<221> modified_base
<222> (10)
<223> c=5-methyl
<220>
<221> modified_base
<222> (18)
<223> c=5-methyl
<220>
<223> Description of Artificial Sequence: Novel Sequence
<400> 13
tctgagtagc agaggagctc
```